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ON EURYMERODESMIDAE, A NEW FAMILY OF DIPLOPODA
(STRONGYLOSOMIDEA), AND A NEW ARKANSAS
SPECIES OF EURYMERODESMUS

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Eurymerodesmidae, fam. nov.

This family is set up to include certain genera from the Mississippi Valley, Southeastern and Southwestern States formerly included in *Xystodesmidae*, or in *Chelodesmidae* from which it can be separated by the following characteristics: mandibles with a tongue-like protuberance on the antero-ventral margin of the *pars basalis*; unspined sternites, coxae, and prefemurs; male sternites setose, often with lobes; keels narrow to moderately wide; male gonopods consisting of a large basal division and a small telopodite which is simple, either setose or glabrous, and caudally directed; gonopodal opening of male with anterior margin always recurved medially (figure 2) and variously modified with lobes and setae, the lobes on the caudal and lateral margins. It resembles *Xystodesmidae* in having smooth tergites with the keels horizontal to somewhat depressed, their lateral margins raised and not serrated.

Type-genus: *Eurymerodesmus* Brölemann 1900. Other genera are *Kewanius* Chamberlin 1938 and *Paresmus* Chamberlin 1942.

Eurymerodesmus angularis, sp. nov.

Figures 1-3

This species resembles *E. spectabilis* Causey and *E. bentonus* Causey in the shape of the lobes on the gonopodal opening of the male, but it can be distinguished from both by differences in the shape of the telopodite of the gonopod and by the distribution of setae on it.

Male holotype. Dorsum black-brown mottled with beige; mid-dorsal black line; orange line around collum, around keels, and across tergites; pleurites dark; sternites cream; legs gray distally.

Lateral margins of keels convex, but less so than in *E. hispidipes* (Wood). Caudal angles of keels 13 through 19 acute. Protuberance on *pars basalis* of mandibles relatively small, without pigment or ridges. Coxal joint of second legs with the usual two conical tubercles, the anterior larger. A pair of low, rounded, hirsute prominences on the metasternite between each pair of legs except first two and last two pairs. Metasternite between ninth legs¹ excavated medially as usual, the furrow narrow and the setae no longer than those between the other legs (figure 1).

¹ These are the legs on the seventh segment directly behind the gonopods; they correspond in position to the ninth legs of the female.

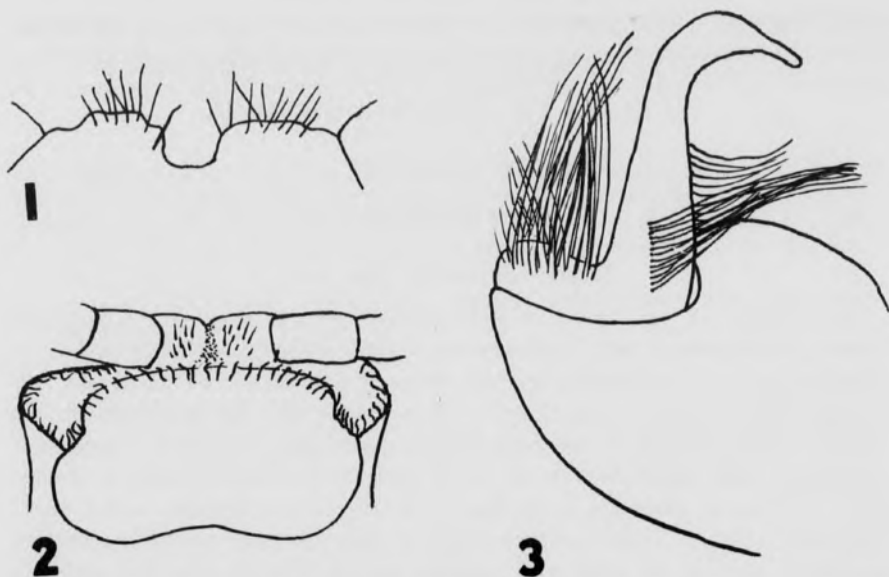


FIGURE 1. *Eurymerodesmus angularis*, caudal view of sternum between ninth legs of male.

FIGURE 2. *Eurymerodesmus angularis*, ventral view of gonopodal opening.

FIGURE 3. *Eurymerodesmus angularis*, submedial view of left gonopod of male.

Gonopodal opening bears postero-laterally a pair of recurved lobes. In lateral view the lobes appear triangular, shorter than the coxae of the ninth legs, with the caudal surface pigmented and covered with setae and the cephalic surface without setae and dark pigment. In ventral view the lobes are seen to turn back medially; laterally they flare away from the margin and then turn in toward the bases of the ninth legs (figure 2). The margins of the lobes are darkly pigmented and setose. A row of setae is across the posterior margin of the opening; the anterior margin was damaged, making it impossible to determine whether there are setae there.

Telopodite of gonopod (figure 3) relatively short, smoothly acuminate, and bent sharply distad. It bears three rows of setae; two rows are short, near the base, on opposite sides of the telopodite, and each is composed of 12 or so setae almost as long as the telopodite; the third and longest row is composed of shorter setae; the distal third of the telopodite is free of setae; at its base is a thick tuft of long setae.

Length 23 mm, width 3.6 mm.

A female collected with the male holotype and believed to belong to this species agrees in general with the male but differs in the following: length 25 mm, width 3.8 mm; sternites glabrous.

Locality. Arkansas, Prairie Co., De Valls Bluff. The male holotype and two females were collected by Mr. Le Roy Gray in April, 1950. The type specimen will be deposited in the collection of the Academy of Natural Sciences of Philadelphia.

Of the numerous species of *Eurymerodesmus*, twelve are known to occur in Arkansas. Several females in my collection are believed to belong to additional undescribed species. Systematic collecting in the state and adjoining areas would furnish interesting material for a study of speciation in this very plastic genus. A key to the *Eurymerodesmidae* occurring in Arkansas will be published in an early paper.

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